

What is claimed is:

1. Component with a piezoelectric functional layer, comprising
 - a substrate (S)
 - a first electrode layer (E1)
 - a structured growth layer (W) that is thin relative to said first electrode layer
 - a piezoelectric layer (P)
 - a second electrode layer (E2).
- 10 2. Component in accordance with claim 1,
in which said growth layer (W) is applied to said first electrode layer (E1), is
structured relative to said first electrode layer, and has a smaller surface area than the
latter.
- 15 3. Component in accordance with claim 1 or 2,
in which said piezoelectric layer (P) completely covers said growth layer (W),
overlaps the latter along its entire circumference, and encloses [it] there with said first
electrode layer (E1).
- 20 4. Component in accordance with any of claims 1 – 3,

in which said growth layer (W) is selected depending on said piezoelectric layer (P) such that it supports its ordered growth.

5. Component in accordance with any of claims 1 – 4,

in which said growth layer (W) is selected from Au, Mo, W, Pt, Si_3N_4 , sapphire, spinel, Si, Ba_3TiO_3 , ZrO_2 , MgO , and TiO_2 .

6. Component in accordance with any of claims 1 – 5,

in which said piezoelectric layer (P) is selected from AlN and ZnO.

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7. Component in accordance with any of claims 1 – 6,

in which said first electrode layer (E1) has a multilayer structure that includes a titanium layer as a different layer from the upper-most layer of the multilayer structure.

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8. Component in accordance with any of claims 1 – 7,

in which an acoustic mirror (AS) is arranged between substrate (S) and first electrode layer (E1).

9. Component in accordance with any of claims 1 – 7,

including a multilayer structure with a plurality of piezoelectric layers (P),
between each of which is arranged an additional electrode layer (E) and an additional
growth layer (W).

5 10. Component in accordance with claim 9, embodied as a piezoelectric actuator.

11. Component in accordance with any of claims 1 – 8,
embodied as an arrangement with at least one resonator working with bulk
acoustic waves.

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12. Method for producing a component that includes at least one resonator
working with bulk acoustic waves, with the steps
- applying a first electrode layer (E1) to a substrate (S)
- structuring said first electrode layer at least to a first electrode region (E11)
15 - applying a growth layer (W) over said first electrode region (E11)
- structuring said growth layer such that a growth region remains exclusively over
said first electrode region and has a smaller surface area than said first electrode region
(E11)

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- whole-surface growth of a piezoelectric layer (P) under conditions that make
possible a crystal-axis oriented growth over said growth region

- structuring of said piezoelectric layer (P) such that it completely covers said growth region, overlaps it laterally along its entire circumference, and encloses [it] there with said first electrode layer (E1)

- application and structuring of a second electrode layer (E2).

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13. Method in accordance with claim 9,

in which the structuring of said growth layer (W) occurs wet-chemically.

14. Method in accordance with claim 9 or 10,

10 in which a gold layer is vapor-deposited as said growth layer (W).

15. Method in accordance with any of claims 9 – 12,

in which the growth of said piezoelectric layer (P) occurs by means of a CVD or PVD process.